

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Claims 1, 3, 9, 10, 12, 13, 15, 16-22 and 24 have been cancelled.

Claims 2, 4-8, 14, and 23 are allowed and have been renumbered, 2-5, 7-8, 6, and 1, respectively.

23. A reaction disk for an automatic analyzer, comprising:

a reaction disk body ~~which that~~ is rotatable about a vertical axis ~~centrally disposed rotational axis extending perpendicular to a plane corresponding generally to a horizontally disposed disk expanse;~~

at least one separation cell; and

at least one determination cell, said at least one separation cell and said at least one determination cell being respectively arranged along a periphery of the reaction disk body located radially outward of said ~~rotational~~ vertical axis, said at least one separation cell and said at least one determination cell being provided as discrete cell units which are independently separate from one another in a same said reaction disk body, at least a radially outward internal wall of each of said at least one separation cell and said at least one determination cell being maintained in a substantially parallel orientation with respect to said ~~rotational~~ vertical axis when said reaction disk body is at

rest and during rotation of said reaction disk body, supernatant separated by said centrifugal separation from the suspension contained in the separation cell being dispensable to the determination cell to allow analysis of a target substance in the supernatant; and

said at least one separation cell having an internal structure defining an insoluble matter collection zone in a lower portion of said at least one separation cell and a supernatant separation zone in an upper portion of said at least one separation cell, a horizontal sectional area of the supernatant separation zone being greater than another horizontal sectional area corresponding to ~~[[the]]~~ said insoluble matter collection zone and ~~such that a horizontal shelf is formed at the boundary between~~ ~~[[the]]~~ said supernatant separation zone and ~~[[the]]~~ said insoluble matter collection zone where a portion of said supernatant separation zone extends radially inward of the insoluble matter collection zone, said shelf ~~being comprised of a horizontally extended ledge which is orthogonal to a radially inward vertical wall of said insoluble matter collection zone; and~~

each said at least one separation cell including a lid being positioned to only partially cover each said at least one separation cell, ~~[[and]]~~ said lid being disposed at a radially outward position of each said at least one separation cell directly over said horizontal sectional area corresponding to the insoluble matter collection zone, so as to leave an opening through which the supernatant is withdrawable from above said portion of said supernatant separation zone which extends radially inward of ~~[[the]]~~ said

insoluble matter collection zone, while concomitantly blocking flow of [[the]] said suspension outward from said at least one separation cell during centrifugal separation.

2. The reaction disk according to claim [[1]] 23, further comprising a single motor attached to the reaction disk body, a rotational speed of said single motor being selectable so as to rotate at a first speed for rotating [[the]] said separation cell for carrying out said centrifugal separation of the suspension into [[the]] said supernatant and an insoluble matter and at a second speed for rotatably positioning [[the]] said determination cell at a place where dispensing is performable by a dispensing probe.

4. The reaction disk according to claim [[1]] 23, further comprising a dilution cell kept in upright position even during rotation, wherein [[the]] said dilution cell is formed to prevent poured dilution solution therein from flowing out during centrifugal separation, and [[the]] said dilution solution in [[the]] said dilution cell is arranged to be dispensed to [[the]] said determination cell enabling to dilute [[the]] said supernatant.

5. The reaction disk according to claim 4, wherein [[the]] said dilution cell is provided with a lid at an upper portion of the dilution cell to partially cover [[the]] said dilution cell to prevent the dilution solution from flowing out during centrifugal separation.

6. The reaction disk according to claim [[1]] 23, wherein [[the]] said suspension is blood containing blood cell as an insoluble matter, and [[the]] said supernatant is plasma.

7. An automatic analyzer for a supernatant, comprising: [[the]] said reaction disk according to claim [[1]] 23;

a dispensing probe for dispensing a reagent to [[the]] said determination cell of [[the]] said reaction disk;

a lamp that illuminates said determination cell; and

a motor for rotating said reaction disk body.

8. The automatic analyzer according to claim 7, wherein [[the]] said suspension is blood containing blood cell as an insoluble matter, and [[the]] said supernatant is plasma.

14. The reaction disk according to claim [[1]] 23, wherein said reaction disk body is rotatably drivable at a speed suitable for separation and at another speed suitable for determination, said speed and said another speed being alternatively selectably applicable.

Reasons for Allowance

2. The following is an examiner's statement of reasons for allowance: the prior art does not teach or fairly suggest the all of the limitations of instant claim 23, namely, the at least one separation cell having an internal structure defining an insoluble matter collection zone in a lower portion of the separation cell and a supernatant separation zone in an upper portion of the separation cell, a horizontal sectional area of the supernatant separation zone being greater than another horizontal sectional area corresponding to the insoluble matter collection zone such that a horizontal shelf is created at the boundary between the supernatant separation zone and the insoluble matter collection zone where a portion of the supernatant separation zone extends radially inward of the insoluble matter collection zone. The shelf is orthogonal to a

radially inward vertical wall of the insoluble matter collection zone. The separation cells each include a lid being positioned to only partially cover each the at least one separation cell, the lid being disposed at a radially outward position of each the at least one separation cell directly over the horizontal sectional area corresponding to the insoluble matter collection zone, so as to leave an opening through which the supernatant is withdrawable from above the portion of the supernatant separation zone which extends radially inward of the insoluble matter collection zone, while concomitantly blocking flow of the suspension outward from the at least one separation cell during centrifugal separation.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to P. Kathryn Wright whose telephone number is (571)272-2374. The examiner can normally be reached on Monday thru Thursday, 9 AM to 6 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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/P. Kathryn Wright/
Primary Examiner, Art Unit 1797